METHOD AND APPARATUS FOR ADJUSTING GRAPHICS PROCESSING PROCEDURES BASED ON A SELECTABLE SPEED/QUALITY GAUGE

ABSTRACT OF THE DISCLOSURE

A method and apparatus that adjusts certain graphics processing procedures based on a selectable speed/quality (S/Q) adjustment gauge. The S/Q adjustment can be tuned within a predetermined range (e.g., 0 to 255) where on one side, speed is represented over image quality while on the other side, image quality is represented over speed. Settings between the ends give proportional representation for speed and quality. A first graphics process determines whether linear or perspective texture mapping processes are to be used on the selected polygon based on: 1) the size of the polygon measured against a predetermined size threshold; and 2) the relative perspective of the polygon measured against a perspective threshold. The S/Q setting alters these thresholds to alter the operation of the first graphics procedure. A second graphics process splits a selected polygon graphics primitive based on the relative perspective of the polygon compared to a predetermined perspective threshold. The S/Q setting alters the predetermined perspective threshold to alter the operation of the second graphics procedure. A third graphics process splits the selected polygon based on: 1) the size of the polygon; and 2) the orthogonal span of the polygon. The S/Q setting alters the operation of the third graphics procedure. Lastly, a fourth graphics process selects either fixed point or floating point calculations for certain graphics operations on the primitive. The S/Q setting alters the thresholds for the selection within the fourth graphics procedure.